

# Utah Department of Environmental Quality

## Division of Air Quality

---

### 2011-2012 Winter Ozone Study—Participant Biographies

#### Utah State University/Energy Dynamics Lab

**Dr. Scott Hill** is Director of Utah State University Research Foundation's Energy Dynamics Laboratory (EDL), Eastern Utah Operations, at the Bingham Entrepreneurship and Energy Research Center in Vernal, Utah. As program director for EDL's tasks in the 2011-12 Uintah Basin Winter Ozone and Air Quality Study and as eastern region representative for Utah Science Technology and Research (USTAR), Dr. Hill partners with industry, government agencies, and educational institutions to support development of the energy resources in the Uintah Basin in an environmentally and socially responsible manner.

Dr. Hill has been instrumental in the development and growth of Combustion Resources, Inc., and he currently serves as their vice president. He also was thrust area chair for combustion modeling at the Advanced Combustion Engineering Research Center (ACERC), established by the National Science Foundation (NSF) jointly at Brigham Young University and University of Utah. Dr. Hill's research focused on computer simulations of flow, combustion, gasification, and oil shale systems

**Randy Martin** is a Research Associate Professor of Environmental Engineering at Utah State University's (USU) Utah Water Research Laboratory (UWRL). His research interests center around the measurement and analysis of atmospheric trace species, most notably reactive hydrocarbons and related oxidation products. Dr. Martin is the technical lead for the EDL's task in the 2011-12 Uintah Basin Winter Ozone and Air Quality Study. Dr. Martin's research has focused on the characterization and behavior of ambient fine particulate (PM<sub>2.5</sub> and PM<sub>10</sub>) and effects on visibility. Other areas of research have included mechanisms of advance oxidation for gas-phase pollutant control and aerosol generation and measurement. Dr. Martin's expertise includes air pollution photochemistry, air quality monitoring, biogenic emissions measurements, air pollution modeling, advanced oxidation processes for gaseous pollutant control, and source particulate fractionation and measurement.

#### Western Energy Alliance

**Kathleen Sgamma** is Vice President of Government & Public Affairs for Western Energy Alliance. She handles federal legislative, public lands, environmental, and regulatory issues for companies involved in all aspects of exploration and production of oil and natural gas in the West. Prior to joining Western Energy Alliance in 2006, Kathleen spent eleven years in the Information Technology sector, including managing the European consulting practice for a software vendor, and three years as a Military Intelligence Officer in the US



Utah Department of  
**Environmental Quality**  
Enhancing Utah's Quality of Life

For More Information Contact:  
(insert contact information of Project Manager)

# Utah Department of Environmental Quality

## Division of Air Quality

---

Army. She holds a BS in Political Science/Defense and Arms Control Studies from the Massachusetts Institute of Technology and an MS in Information Technology from Virginia Tech.

### Utah Department of Health

**Kellie Baxter** is a Health Program Specialist with the Utah Department of Health Asthma Program. The Utah Asthma Program is funded through the CDC to address asthma from a public health perspective. The Asthma Program has been involved with air quality through the state and addresses health concerns of outdoor air quality for people with asthma. The Utah Asthma Program funds TriCounty Health Department to address asthma education and management in the area.

### National Oceanic and Atmospheric Administration

**Gabrielle Petron**, NOAA Earth System Research Laboratory (Global Monitoring Division) and the Cooperative Institute for Research in Environmental Sciences (CIRES)

[Gabrielle.Petron@noaa.gov](mailto:Gabrielle.Petron@noaa.gov)

Dr. Petron joined the NOAA Global Monitoring Division in 2005. Her work focuses on using atmospheric measurements to evaluate emission inventories of greenhouse gases and air pollutants from the urban to the global scale. More recently she has pursued the creation of a NOAA Mobile Laboratory to allow state-of-the-science instruments to be deployed in the field to map ambient levels of trace gases with fast response in situ measurement and to acquire targeted air samples for source characterization.

**James Roberts**, NOAA Earth System Research Laboratory (research chemist in the Chemical Sciences Division)

[James.M.Roberts@noaa.gov](mailto:James.M.Roberts@noaa.gov)

Dr. Roberts has a long-standing interest in the organic chemistry of the atmosphere. He has worked on a variety of issues such as; the transport and chemistry of volatile organic compounds, the chemistry of organic nitrates and their contribution to the transport of atmospheric odd-nitrogen, the involvement of biogenic hydrocarbons in ozone and particle formation in the troposphere, the activation of chlorine by odd-nitrogen, and the atmospheric chemistry of acidic species.

**Russell Schnell**, NOAA Earth System Research Laboratory (Deputy Director of the Global Monitoring Division)

[Russell.C.Schnell@noaa.gov](mailto:Russell.C.Schnell@noaa.gov)

A NOAA atmospheric scientist who has published 134 scientific papers, Dr. Schnell has lived, traveled, or worked in 87 countries and on every continent, and has been to both the North and South Poles. In 1991, he



Utah Department of  
**Environmental Quality**  
Enhancing Utah's Quality of Life

For More Information Contact:  
(insert contact information of Project Manager)

# Utah Department of Environmental Quality

## Division of Air Quality

---

joined NOAA in Hawaii to become director of the Mauna Loa Observatory, the premier long-term atmospheric monitoring facility where increasing concentrations of global atmospheric carbon dioxide were discovered. Schnell moved stateside to Boulder, Colo., in 1998 to become director of observatory and global network operations. Since 2007, he's been ESRL's deputy director of the Global Monitoring Division, which provides data to keep scientists abreast of the current state of the atmosphere.

### Utah Division of Air Quality

**Brock LeBaron** completed an undergraduate degree in Biology in 1975 from Utah State University. He went on to complete a graduate degree in Meteorology from Utah State University in 1980. His graduate work focused on meteorology in mountainous terrain.

After graduation, Brock worked as a staff scientist for Battelle - Pacific Northwest National Laboratories in Richland, Washington. During this time he specialized in atmospheric and climatic research, and published over 15 papers in peer-reviewed journals.

In 1990 Brock started working for the Division of Air Quality as an air quality modeler. He has worked on models for both air quality permits and state implementation plans (SIPs), and drafted the Division's first modeling guidance. He coordinated the development of the State's rules on modeling criteria and hazardous air pollutants.

He serves as a state representative on the Western States Air Resource Council (WESTAR), a board member of the Western Regional Air Partnership (WRAP), and has been a member of the Air and Waste Management Association since 1990. He was actively involved with the Governor's Quality Growth Commission and the ENVISION Utah process.

In 2011 Brock became the Deputy Director for the Division of Air Quality with primary responsibility for coordinating air issues in the rural areas of Utah. He is currently focused on wintertime ozone issues in the Uintah Basin where a multi-agency study is being planned for this winter.



*Utah Department of*  
**Environmental Quality**  
Enhancing Utah's Quality of Life

For More Information Contact:  
(insert contact information of Project Manager)